

## **ABSTRACT**

Novel depolymerized-LMWepiK5-N,O-sulfates obtainable starting from a LMW-epiK5-N-sulfate prepared by nitrous depolymerization of an epiK5-N-sulfate or by C5-epimerization of a LMW-K5-N-sulfate obtained by nitrous depolymerization of a K5-N-sulfate. A process consists of submitting the starting depolymerized-LMW-epiK5-N-sulfate to four steps: a O-oversulfation, a partial O-desulfation, a 6-O-sulfation and a N-sulfation. The new depolymerized-LMWepiK5-N,O-sulfates present a di- or trisulfated 2,5-anhydromannitol unit at the reducing end of the majority of its chains, have a content of iduronic acid of 40-60%, a sulfation degree of from 2.3 to 2.9 and a mean molecular weight of from about 1,500 to about 12,000. They exhibit a good antithrombotic activity with a low pro-hemorrhagic risk.